

# Treatment Options for Uncontrolled Asthma

## PCORI RESEARCH PLAN

### Technical Abstract:

**Background:** In 2010, an estimated 20.1 million adults in the US had asthma and 16.2% were aged 65 and older. In Massachusetts (MA), older adults have the highest mortality rate and the second highest hospitalization rate for asthma in the state. Black and Hispanic older adults have 3 times higher hospitalization rates for asthma than their White counterparts. Hispanics have significantly higher asthma prevalence than Whites.

**Objectives:** This proposed study aims to improve asthma outcomes and quality of life for Black and Hispanic older adults with asthma by adding a team-based intervention that includes a home-visiting community health worker, visiting nurse and pharmacist to their primary care team on asthma management for older adults. The study will answer the question of whether this approach improves patient self management and adherence to guidelines-directed care when compared to usual care, with resultant reduction in emergent healthcare utilization and improvement in asthma control and quality of life.

**Methods:** The Reducing Older Adult Asthma Disparities (ROAAD) Study will employ a Randomized Control Trial study design and will enroll 300 Black and Hispanic older adults with provider-diagnosed not well or very poorly controlled asthma in a 1-year intervention or into a control group receiving usual care. Participants will be patients at one of two hospital-based clinic systems in Boston providing care to predominantly inner-city African-American and Hispanic populations or in one community health center in Lawrence. In the planning year, the study will conduct a qualitative assessment of the best educational methods for Black and Hispanic older adults; adapt existing asthma home visiting trainings to add focus on the older adult population; and develop pharmacist training. The intervention in Years 2 and 3 will integrate a CHW, visiting nurse and pharmacist into the primary care setting. The CHW and visiting nurse will provide home visits focused on improving asthma self-management and environmental assessment/remediation. Group asthma self-management will be offered in the clinic. The pharmacist will assist with medication reconciliation, on-going medication adjustment and medication adherence.

**Outcomes:** The study will assess as primary outcomes patient urgent care use, medication utilization, asthma control and quality of life.

**Partnerships to Facilitate Study:** Brigham and Women's Hospital - Partners Asthma Center, Tufts Medical Center - Asthma Center, Boston Public Health Commission, Greater Lawrence Family Health Center, Northeastern University Urban Health Institute. Additional partners will include Massachusetts Executive Office of Elder Affairs, Massachusetts Association of Pharmacists, Massachusetts Association of Community Health Workers, Visiting Nurse Associations, and Massachusetts Association of Councils on Aging. Older adults with asthma will provide input to the planning of the project in Year 1 and advise on the implementation in Years 2 and 3.